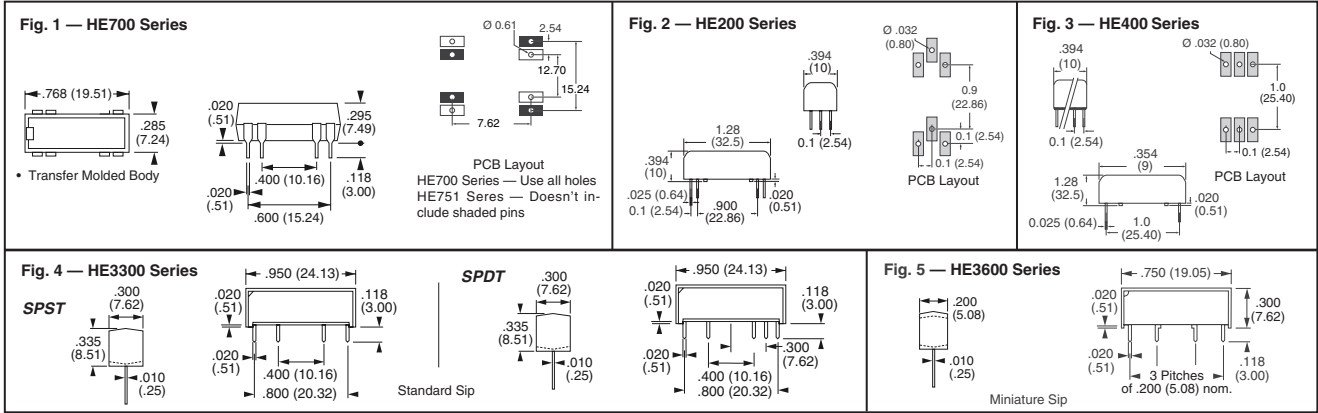


# HAMLIN Reed Relays

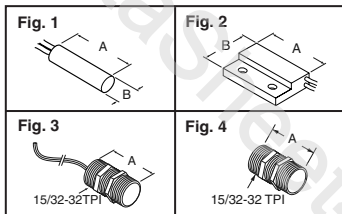


| Top View  | Coil Volt. (VDC) | Coil Res. (Ω) | Pickup/Dropout (VDC@ 25°C) | Switch. Volt. (VDC) | Switch Current (Amps) | Carry Current (Amps) | Cont. Res. (Ω) | Oper./Rel. Time (msec) | Ins. Res. (Ω) | Features         | Digi-Key Part No. | 1        | 10     | Pricing 50 | 100         | Hamlin Part No. |             |
|---|------------------|---------------|----------------------------|---------------------|-----------------------|----------------------|----------------|------------------------|---------------|------------------|-------------------|----------|--------|------------|-------------|-----------------|-------------|
| <b>Fig. 1 — 700 Series DIP Reed Relays</b>              |                  |               |                            |                     |                       |                      |                |                        |               |                  |                   |          |        |            |             |                 |             |
| 1A<br>SPST-NO   |                  | 5             | 500                        | 3.75/0.5            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE100-ND | 1.59   | 13.48      | 56.35       | 91.88           | HE721A0500  |
|   |                  | 5             | 500                        | 3.75/0.5            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | w/Diode           | HE101-ND | 1.69   | 14.30      | 59.80       | 97.50           | HE721A0510  |
|   |                  | 12            | 1000                       | 8.0/1.0             | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE102-ND | 1.69   | 14.30      | 59.80       | 97.50           | HE721A1200  |
|   |                  | 12            | 1000                       | 8.0/1.0             | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | w/Diode           | HE103-ND | 1.79   | 15.13      | 63.25       | 103.13          | HE721A1210  |
|   |                  | 24            | 2150                       | 16.0/2.0            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE104-ND | 1.69   | 14.30      | 59.80       | 97.50           | HE721A2400  |
| 24  | 2150             | 16.0/2.0      | 200                        | 0.5                 | 1.2                   | 0.150                | 1.0/1.0        | 10 <sup>10</sup>       | w/Diode       | HE105-ND         | 1.79              | 15.13    | 63.25  | 103.13     | HE721A2410  |                 |             |
| 2A<br>DPST-NO   |                  | 5             | 200                        | 3.75/0.5            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | w/Diode           | HE123-ND | 3.19   | 26.95      | 112.70      | 183.75          | HE722A0510  |
|   |                  | 5             | 150                        | 3.75/0.5            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE106-ND | 3.09   | 26.13      | 109.25      | 178.13          | HE722A0600  |
|   |                  | 5             | 150                        | 3.75/0.5            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | w/Diode           | HE107-ND | 3.19   | 26.95      | 112.70      | 183.75          | HE722A0610  |
|   |                  | 12            | 500                        | 8.0/1.0             | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE108-ND | 3.19   | 26.95      | 112.70      | 183.75          | HE722A1200  |
|   |                  | 12            | 500                        | 8.0/1.0             | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | w/Diode           | HE109-ND | 3.28   | 27.78      | 116.15      | 189.38          | HE722A1210  |
| 1C<br>SPDT-CO   |                  | 5             | 200                        | 3.75/0.5            | 175                   | 0.25                 | 1.5            | 0.200                  | 3.0/3.0       | 10 <sup>9</sup>  | —                 | HE112-ND | 3.87   | 32.73      | 136.85      | 223.13          | HE721C0500  |
|   |                  | 5             | 200                        | 3.75/0.5            | 175                   | 0.25                 | 1.5            | 0.200                  | 3.0/3.0       | 10 <sup>9</sup>  | w/Diode           | HE113-ND | 3.97   | 33.55      | 140.30      | 228.75          | HE721C0510  |
|   |                  | 12            | 500                        | 8.0/1.0             | 175                   | 0.25                 | 1.5            | 0.200                  | 3.0/3.0       | 10 <sup>9</sup>  | —                 | HE114-ND | 3.97   | 33.55      | 140.30      | 228.75          | HE721C1200  |
|   |                  | 12            | 500                        | 8.0/1.0             | 175                   | 0.25                 | 1.5            | 0.200                  | 3.0/3.0       | 10 <sup>9</sup>  | w/Diode           | HE115-ND | 4.06   | 34.38      | 143.75      | 234.38          | HE721C1210  |
|   |                  | 24            | 2000                       | 16.0/2.0            | 175                   | 0.25                 | 1.5            | 0.200                  | 3.0/3.0       | 10 <sup>9</sup>  | —                 | HE116-ND | 3.97   | 33.55      | 140.30      | 228.75          | HE721C2400  |
| 24  | 2000             | 16.0/2.0      | 175                        | 0.25                | 1.5                   | 0.200                | 3.0/3.0        | 10 <sup>9</sup>        | w/Diode       | HE117-ND         | 4.06              | 34.38    | 143.75 | 234.38     | HE721C2410  |                 |             |
| 1A<br>SPST-NO   |                  | 5             | 500                        | 3.75/0.5            | 300                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | High Volt.        | HE124-ND | 2.08   | 17.60      | 73.60       | 120.00          | HE751A0510  |
|   |                  | 12            | 1000                       | 8.0/1.0             | 300                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | High Volt.        | HE125-ND | 2.18   | 18.43      | 77.05       | 126.63          | HE751A1210  |
|   |                  | 24            | 2150                       | 16.0/2.0            | 300                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | High Volt.        | HE126-ND | 2.28   | 19.25      | 80.50       | 131.25          | HE751A2410  |
| <b>Fig. 2 — 200 Series DIP Reed Relays</b>              |                  |               |                            |                     |                       |                      |                |                        |               |                  |                   |          |        |            |             |                 |             |
| 1A<br>SPST-NO   |                  | 5             | 140                        | 3.5/0.28            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE118-ND | 3.64   | 30.80      | 128.80      | 210.00          | HE221A0550  |
|   |                  | 12            | 855                        | 8.4/0.7             | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE119-ND | 3.87   | 32.73      | 136.85      | 223.13          | HE221A1250  |
|   |                  | 24            | 3285                       | 16.8/1.4            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE120-ND | 4.10   | 34.65      | 144.90      | 236.25          | HE221A2450  |
| <b>Fig. 3 — 400 Series DIP Reed Relays</b>              |                  |               |                            |                     |                       |                      |                |                        |               |                  |                   |          |        |            |             |                 |             |
| 1A<br>SPST-NO   |                  | 12            | 960                        | 8.5/1.0             | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE121-ND | 3.87   | 32.73      | 136.85      | 223.13          | HE421A1250  |
| 24  | 3840             | 18.0/2.0      | 200                        | 0.5                 | 1.2                   | 0.150                | 1.0/1.0        | 10 <sup>10</sup>       | —             | HE122-ND         | 4.10              | 34.65    | 144.90 | 236.25     | HE421A2450  |                 |             |
| <b>Fig. 4 — 3300 Series SIP Reed Relays</b>             |                  |               |                            |                     |                       |                      |                |                        |               |                  |                   |          |        |            |             |                 |             |
| 1A<br>SPST-NO   |                  | 5             | 500                        | 3.75/0.5            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE200-ND | 1.63   | 13.75      | 57.50       | 93.75           | HE3321A0400 |
|   |                  | 12            | 500                        | 9.0/1.0             | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE201-ND | 1.72   | 14.58      | 60.95       | 99.38           | HE3321A1200 |
|   |                  | 24            | 2000                       | 18.0/2.0            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE202-ND | 1.82   | 15.40      | 64.40       | 105.00          | HE3321A2400 |
|   |                  | 5             | 125                        | 3.75/0.5            | 250                   | 1.0                  | 1.5            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | High Volt.        | HE127-ND | 2.15   | 18.15      | 75.90       | 123.75          | HE3351A0500 |
|   |                  | 12            | 500                        | 9.0/1.0             | 250                   | 1.0                  | 1.5            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | High Volt.        | HE128-ND | 2.24   | 18.98      | 79.35       | 129.38          | HE3351A1200 |
| 24  | 2000             | 18.0/2.0      | 250                        | 1.0                 | 1.5                   | 0.150                | 1.0/1.0        | 10 <sup>10</sup>       | High Volt.    | HE129-ND         | 2.31              | 19.53    | 81.65  | 133.13     | HE3351A2400 |                 |             |
| 1C<br>SPDT-CO   |                  | 5             | 125                        | 3.75/0.5            | 175                   | 0.25                 | 1.5            | 0.200                  | 3.0/3.0       | 10 <sup>9</sup>  | —                 | HE203-ND | 4.00   | 33.83      | 141.45      | 230.63          | HE3321C0500 |
|   |                  | 12            | 500                        | 9.0/1.0             | 175                   | 0.25                 | 1.5            | 0.200                  | 3.0/3.0       | 10 <sup>9</sup>  | —                 | HE204-ND | 4.10   | 34.65      | 144.90      | 236.25          | HE3321C1200 |
|   |                  | 24            | 2000                       | 18.0/2.0            | 175                   | 0.25                 | 1.5            | 0.200                  | 3.0/3.0       | 10 <sup>9</sup>  | —                 | HE205-ND | 4.10   | 34.65      | 144.90      | 236.25          | HE3321C2400 |
| <b>Fig. 5 — 3600 Series Ultra Miniature Reed Relays</b> |                  |               |                            |                     |                       |                      |                |                        |               |                  |                   |          |        |            |             |                 |             |
| 1A<br>SPST-NO   |                  | 5             | 500                        | 3.75/0.5            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE206-ND | 1.59   | 13.48      | 56.35       | 91.88           | HE3621A0500 |
|   |                  | 5             | 500                        | 3.75/0.5            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | w/Diode           | HE207-ND | 1.69   | 14.30      | 59.80       | 97.50           | HE3621A0510 |
|   |                  | 12            | 1000                       | 8.0/1.0             | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE208-ND | 1.72   | 14.58      | 60.95       | 99.38           | HE3621A1200 |
|   |                  | 12            | 1000                       | 8.0/1.0             | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | w/Diode           | HE209-ND | 1.85   | 15.68      | 65.55       | 106.88          | HE3621A1210 |
|   |                  | 24            | 2150                       | 16.0/2.0            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | —                 | HE210-ND | 1.72   | 14.58      | 60.95       | 99.38           | HE3621A2400 |
|   |                  | 24            | 2150                       | 16.0/2.0            | 200                   | 0.5                  | 1.2            | 0.150                  | 1.0/1.0       | 10 <sup>10</sup> | w/Diode           | HE211-ND | 1.85   | 15.68      | 65.55       | 106.88          | HE3621A2410 |



## Magnetic Reed Position Sensors

Features: • Operating Temperature: -40°C - 105°C  
• Leads: 24 AWG PVC, Pre-tinned, 12" long



| Fig. | Description  | Dim. - Inch | Digi-Key Part No. | Price Each        | Cherry Part No. |
|------|--|-------------|-------------------|-------------------|-----------------|
|      |  | A B         |                   | 1 10 50           |                 |
| 1    | Magnetic Position Sensor, 10W, SPST-NO, .5A            | 1.00 0.243  | CH402-ND          | 3.16 2.81 2.34    | MP201701        |
|      | Magnetic Position Sensor, 3W, SPST-NC, .2A             | 1.00 0.243  | CH403-ND          | 4.75 4.23 3.52    | MP201702        |
|      | Magnetic Position Sensor, 3W, SPDT-CO, .2A             | 1.00 0.243  | CH404-ND          | 5.21 4.64 3.86    | MP201703        |
| 1    | Smooth Barrel Actuator                                 | 1.00 0.243  | CH411-ND          | 2.97 2.64 2.20    | AS201701        |
| 2    | Mini Flange Mount Proximity Sensors, 10W, SPST-NO, .5A | .906 .550   | CH405-ND          | 3.46 3.08 2.56    | MP201901        |
|      | Mini Flange Mount Proximity Sensors, 3W, SPST-NC, .2A  | .906 .550   | CH406-ND          | 5.21 4.64 3.86    | MP201902        |
|      | Mini Flange Mount Proximity Sensors, 3W, SPDT-CO, .2A  | .906 .550   | CH412-ND          | 3.11 2.76 2.30    | AS201901        |
| 2    | Flange Mount Proximity Sensors, 10W, SPST-NO, .5A      | 1.125 .750  | CH407-ND*         | 3.59 3.20 2.66    | MP201901        |
|      | Flange Mount Proximity Sensors, 3W, SPST-NC, .2A       | 1.125 .750  | CH408-ND*         | 5.37 4.78 3.98    | MP201902        |
|      | Flange Mount Proximity Sensors, 3W, SPDT-CO, .2A       | 1.125 .750  | CH409-ND*         | 5.89 5.24 4.36    | MP201903        |
| 2    | Flange Mount Actuator                                  | 1.125 .750  | CH413-ND          | 3.38 3.00 2.50    | AS201901        |
|      | Magnetic Position Sensor Aluminum 10W, SPST-NO, .5A    | 1.00 —      | CH410-ND          | 10.13 9.00 7.50   | MP200701        |
| 3    | Magnetic Position Sensor Aluminum 3W, SPST-NC, .2A     | 1.00 —      | CH709-ND          | 12.56 11.16 9.30  | MP200702        |
|      | Magnetic Position Sensor Aluminum 3W, SPDT-CO, .2A     | 1.00 —      | CH710-ND          | 13.10 11.64 9.70  | MP200703        |
| 4    | Threaded Actuator, South pole magnet                   | 1.00 —      | CH397-ND          | 14.01 12.46 10.38 | HE610400        |

\*Wire leads extend from opposite side of switch

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